

BRONITKI, Al.; DEREVICI, A.; BALMUS, Gh.; SONG, Pham

Action of histamine on the tracheal cytograms of mice subjected to influenza infection. Stud. cercet. inframicrobiol. 12 no.3:367-373 '61.

1. Communicare prezentarea la Institutul de inframicrobiologie al Academiei R.P.R.  
(INFLUENZA experimental) (TRACHEA pathology)  
(HISTAMINE pharmacology)

RUMANIA

A.I. BRONITKI, R. DEMETRESCU, G. DONA, M. CONSTANTINESCU and A. CAZACU,  
Inframicrobiology Institute of the Rumanian Academy [of Sciences]  
(Institutul de Inframicrobiologie al Academiei R.P.R.) [Bucharest.]

"Isolation of Large Inframicrobes During the Influenza Epidemic 1962."

Bucharest, Studii si Cercetari de Inframicrobiologie, Vol 14, No 2, 1963;  
pp 197-201.

Abstract [English summary modified]: From 171 specimens (including 110 nasopharyngeal smears, 48 of urine) of influenza patients during the 1962 epidemic, 6 influenza virus strains were isolated but only when incubating at 35 rather than 37 centigrade. Also 10 larger, rickettsia-like agents (cell size 200 to 400 microns) Speculative discussion as to significance; considered probable. Three photomicrographs; 10 Rumanian (incl. thesis) and 3 Western references.

| 1/1

RUMANIA

~~APPROVED FOR RELEASE: 08/22/2000~~ CIA-RDP86-00513R000307010020-8<sup>de</sup>  
A. BRONITKI, G. DONA, G. ISAIA and R. DEMETRESCU, Institute of  
inframicrobiologie al Academiei RPR,) [Bucharest.]

"Cultivation of Adenovirus Type 3 in the Lung of White Mice."

Bucharest, Studii si cercetari de inframicrobiologie, Vol 14, No 3,  
1963; pp 329-334.

Abstract [English summary modified]: Adaptation of adenovirus type 3 to mice lungs by successive passages. Characteristic lesions of cell nuclei appeared. After 10 such serial passages, the virus was passed into embryonic human cell tissue culture, producing typical plaques therein, preventable by specific antiserum. Four photomicrographs, 2 Rumanian, 1 Japanese and 18 Western references.

BRONITKI, A.; DEMETRESCU, R.; POPESCU, G.; MALLAN, A.

Isolation of adenovirus from a human case of pulmonary carcinoma. Acta virol. 8 no.5:4'72 S '64.

1. Institute of Inframicrobiology of the R.P.R. Academy , Bucharest, Rumania

BRONJIKI, A. J.; MEFEREDO, R.; MALIAN, A. asist. med.

The presence of anti-influenzal and anti-adenoviral antibodies in  
domestic and wild animals. Stud. cercet. inframicrobiol. 16 no.3:  
217-220 '65.

DEREVICH, A. [Derevici, A.]; BRONITSKI, A. [Bronicki, A.]; PETRESKU, A.  
[Petrescu, A.]

Biological characteristics of influenza virus strains isolated in  
Rumania; relation to strains isolated during the influenza epidemic  
in February and March 1959. Vop.virus. 6 no.5:560-564 S-0 '60.  
(MIRA 14:7)

1. Institut inframikrobiologii Akademii nauk Rumynskoy Narodnoy  
Respubliki.

(RUMANIA—INFLUENZA)

PEEDESKU, L.; BRONITSKII, A.; ISAIIA, G.

Behavior of fibroblasts and epithelial cells in the isolation of  
adenoviruses. Rev. sci. med. 7 no.1/2:115-118 '62.  
(ADENOVIRUS) (EPITHELIUM)

PORTOKALE, R. [Portocala, R.]; DUMITRESKO, S. [Dumitresco, S.]; IONESCU, I.  
[Ionescu, I.]; BRONITSKIY, A. [Bronitki, A.]

Morphological characteristics of 3 types of influenza virus, including  
one with a double antigen. Vop. virus 6 no.4:408-415 Jl-Ag '61.  
(MIRA 14:11)

I. Institut inframikrobiologii Akademii nauk Rumynskoy Narodnoy  
Respubliki, Bukharest.  
(INFLUENZA)

BRONITSKIY, N.I. (Gulistan)

Horizontal and vertical drainage in the old zone of the Golodnaya  
Steppe. Gidr. i mel. 14 no.9:12-20 S '62. (MIRA 17:2)

BRONITSKIY, N.I.

Possibilities for using surface drainage in the Golodnaya  
Steppe. Trudy SANIIRI no. 98:33-42 '59. (MJRA 14:1)  
(Golodnaya Steppe—Drainage)

BRONITSKIY, N.I.

Land reclamation problems in the Golodnaya Steppe. Mat. po  
preizv. sil. Uzb. no.15:260-270 '60. (MIRA 14:8)

1. 1-ya direktsiya Glavgolodnostepstroya.  
(Golodnaya Steppe—Water, Underground)

BRONITSKIY, N.I. (g. Mirzachul' Uzbekskoy SSR)

First results of the use of vertical drainage in the Golodnaya  
Steppe. Gidr. i mel. 13 no.9:24-32 S '61. (MIRA 14:9)  
(Golodnaya Steppe--Drainage)

BRONITSKIY, Ye.I.

Constructing retaining walls along the mountain roads of Kirghizistan.  
Avt. dor. 23 no.10:13-14 O '60. (MIRA 13:10)  
(Kirghizistan--Retaining walls) (Road construction)

BRONITSKIY, Ye.I., inzh.

Using the materials of mountain talus in constructing the Frunze-Osh highway. Avt. dor. 27 no.8:12-13 Ag '64. (MIRA 17:12)

BRONKALLA, V.; CHUPRINA, R.I., nauchnyy sotrudnik; KLEPIKOVA, L.A., nauchnyy sotrudnik; BRATIYCHUK, M.V.; NEVEL'SKIY, A.V., mladshiy nauchnyy sotrudnik; KAKHKHOROV, A.; ZAV'YALOV, P.P.; VOLYNSKIY, B.A.

Results of photographic observations of artificial earth satellites. Biul.sta.opt.nabl.isk.sput.Zem. no.1:14-22 '60.  
(MIRA 13:5)

1. Bahel'sberskaya observatoriya, Berlin, Germanskaya Demokratischeskaya Respublika (for Bronkalla).
2. Astrosovvet AN SSSR (for Chuprina, Klepikova).
3. Nachal'nik stantsii opticheskikh nablyudeniy Uzhgorodskogo gosuniversiteta (for Bratiychuk).
4. Astronomiceskaya observatoriya Ural'skogo gosuniversiteta, Sverdlovsk (for Nevel'skiy).
5. Stantsiya fotonablyudeniy iskusstvennykh sputnikov Zemli 068 Instituta astrofiziki AN Tadzhikskoy SSR, Stalinabad (for Kakhhorov, Zav'yaylov).
6. Nachal'nik stantsii nablyudeniy iskusstvennykh sputnikov Zemli pri Yaroslavskoy pedinstitute (for Volynskiy).

(Artificial satellites—Tracking)

L 8968-66 21, 44, 5-5 21, 44, 5-5 21, 44, 5-5  
ACC NR: AP5027430 SOURCE CODE: UR/0181/65/007/011/3417/3420  
48  
AUTHOR: Dovchenko, N. K.; Bronkevich, Yu. S. B  
ORG: Institute of Physics AN SO SSSR, Krasnoyarsk (Institut fiziki AN SO SSSR)  
TITLE: Experimental investigation of low frequency oscillations in the critical re-  
gion of a ferrite for the case of parallel pumping  
21, 44, 5-5  
SOURCE: Fizika tverdogo tela, v. 7, no. 11, 1965, 3417-3420  
21, 44, 5-5  
TOPIC TAGS: ferrite, single crystal, iron, yttrium, garnet  
ABSTRACT: Data are given from studies of low frequency oscillations in single crys-  
tals of iron-yttrium/garnet. Measurements with continuous pumping were made at 9280  
Mc, and for pulsed pumping at 8620 Mc. 1.5-3.5  $\mu$ sec pulses were used with an inverse  
duty factor of 1000. Oscillograms of the oscillations are given for the case of con-  
tinuous pumping. The oscillation frequency was found to be somewhat higher in stronger  
fields. Maximum frequencies were higher in small spherical specimens than in large  
ones. It was found that noises are a function of the pumping pulse duration: they  
disappear with short pulses, but are a constant factor for the case of continuous  
pumping. It is recommended that means should be studied for eliminating these noises.  
Orig. art. has: 2 figures, 2 formulas.  
SUB CODE: 20/ SUBM DATE: 10Mar65/ ORIG REF: 001/ OTH REF: 003  
Card 1/lpw)

BRONNER, B.V.

N/5  
753.42  
.B8

Telegrafist (The Telegraph Operator) Moskva,  
Svyazbizdat, 1953.

195 p. Illus., Diags., Ports.

At Head of Title: Posobiya Dlya Svyazistov  
Massovykh Professiy.

"Literatura": p. 193.

*BRONNER, B. V.*

USER/ Miscellaneous - Telegraphy

Card 1/1 Pub. 133 - 9/18

Authors : Dyachkov, I. A.; Olenev, A. P.; Bronner, B. V.; and Bushuev, N. K.

Title : To improve the telegraph service

Periodical : Vest. svyazi 2, 17 - 18, Feb 1955

Abstract : Various suggestions are submitted for the improvement in the organization and exploitation of the telegraph communication system for the benefit of all the people of the USSR. Illustration.

Institution: .....

Submitted: .....

BROMMER, B.V., otvetstvennyy za vypusk; FEDORTSOV, Ye.P., otvetstvennyy za vypusk

[Telegraph Center of the Soviet Union; a collection commemorating the 40th anniversary of the October Socialist Revolution]  
TSentral'nyi telegraf Sovetskogo Soiuza; sbornik k 40-i godovshchine Oktiabr'skoi sotsialisticheskoi revoliutsii. Moskva, 1957. 167 p.  
(Telegraph) (MIRA 11:4)

BRONNER, B. V.

Bronner, B. V. & Kokosov, L. V.

Telecommunications engineering

Put' telegrammy. Moscow, Gosudarstvennoe Izdatel'stvo Literatury po Voprosam Svyazi i Radio, 19<sup>69</sup>.

Pp. 63, illus., photos, diags., 22 x 14.

LXIII-1

BRONNER, B.V., inzh.

Restoring vigor. Zdorov'e 5 no.4:11 Ap '59.

(MIRA 12:4)

1. Zamestitel' nachal'nika TSentral'nogo telegrafa.  
(CALLISTHENICS)

BRONNER, B.V.

Work should be performed without checking the printed transmitted  
data on all duplex telegraph communications. Vest. sviazi 20 no.11:  
16-18 N '60. (MIRA 13:12)

1. Zamestitel' nachal'nika TSentral'nogo telegrafa SSSR.  
(Telegraph)

BRONNER, Boris Vul'fovich; NEKRASOVA, L.K., red.

[Organization of teletype service; lectures on the organization and planning of telegraph communication] Organizatsiya abonenteskogo telegrafnoi sviazi. Moskva, Vses.zaochnyi elekrotekhn.in-t sviazi, 1961. 18 p.

(MIRA 14:11)

(Teletype)

*AM* WICHENBERG, G.  
BRONSGA (G.). Wann ist die Bekämpfung der Blattkrankheiten rentabel? [When is leaf disease control profitable?]—Zucker, 4, 17, pp. 357-360, 2 figs., 1 graph, 1951.

Conditions in the Danube Valley, especially in Upper Austria, where mists are frequent in August, are ideal for the development of beet leaf spot (*Cercospora beticola*) [*R.A.M.*, 26, p. 520 and next abstracts]. In humid, warm weather the writer has repeatedly found leaves bearing over 1,000 spots. Thirty dead leaves per plant represents severe infection, but in extreme cases there may be as many as 60.

The only reliable means of combating leaf spot in regions threatened by epiphytotics is by the application of copper sprays, beginning before infection takes place and continuing through August or even later, attacks having occurred in early September, 1950. The results of experiments covering a period of nearly 20 years at Enns have shown that susceptible varieties produce larger yields after spraying than do untreated, partially resistant ones. In 1950 two of the latter, CLR

BRONNER, V.V.

Diet for tuberculotic children of pre-school age in hospitals. *Pediatriia*,  
Moskva No.5:66-70 Sept-Oct 51. (CML 21:4)

1. Of the Department of Children's Nutrition, Institute of Nutrition of  
the Academy of Medical Sciences USSR (Head--Yu.K. Polteva; Director of  
Institute--Prof. O.P. Molchanova) and of Frunzenskiy Rayon Tuberculosis  
Children's Hospital (Head Physician--S.M. Belousova), Moscow.

~~PROYECTO MEDICA~~ Sec 18 Vol. 1/12 Cardiovas. Dis Doc 57

3370. LEITES B. G. and BRONNER V. V. *Dictotherapy in cardio-vascular failure in children with rheumatism. 2. Milk diets (Russian text)* Pediatría 1957, 2 (45-49)  
Tables 2

Karell's milk diet, even with its recent modifications, has very little nutritive value and is not suitable for cardiac children in the active period of growth and with cardiac dystrophy. More suitable in these cases is the 'curd' diet, because it contains more calcium and potassium salts and less sodium. The curd is combined with sugar, apples and milk in the acute stage of the heart failure, and afterwards potatoes are added. Curd has a highly diuretic effect and in any case stimulates the action of mercurials. The vitamin requirements are met by 20% glucosate solutions with juice of fruit available in the season in question, or with ascorbic acid.

Levin - Buenos Aires (XVIII, 7)

BRONNER, V.V.; POLTEVA, Yu.K.

Basic principles in the organization of children's nutrition under sanatorium and health resort conditions. Vop. okh. mat. i det. 5 no. 5:17-22 S-O '60. (MIRA 13:10)

1. Iz otdela detskogo pitaniya (zav. - kand.med.nauk Yu.K. Polterva) Instituta pitaniya AMN SSSR (dir. - chlen-korrespondent AMN SSSR prof. O.P. Molchanova).  
(DIET IN DISEASE)

BRONNER, V.V.; KOCHEGINA, V.V.; ZUBRILINA, G.V.

Protein, and vitamin C and B<sub>2</sub> requirements of children in boarding schools. Pediatriia no.6:21-25 '61. (MIRA 14:9)

1. Iz otdela detskogo pitaniya (zav. Yu.K. Polteva) Instituta pitaniya AMN SSSR (dir. - chlen-korrespondent AMN SSSR prof. O.P. Molchanova).

(PROTEINS) (ASCORBIC ACID) (RIBOFLAVIN)

BRONNFR, V.V. (Moskva)

Nutrient requirements under conditions prevailing in boarding schools. Vop. pit. 24 no.1:42-44 Ja-F '65.

(MIRA 18:9)

1. Laboratoriya izucheniya pitaniya zdorovykh detey in podrostkov Otdela detskogo pitaniya (zav.- dotsent P.V. Simakov) Instituta pitaniya AMN SSSR, Moskva.

BRONNIKOV, A., inzh.

At a fast pace. Sov.shakht. 10 no.3:18 Mr '61. (MIRA 14:7)

1. Tekhnicheskiy otdel tresta Luganskshakhtoprokhodka.  
(Lugansk Province--Mine timbering)

"APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R000307010020-8

~~BROMNIKOV, A. A.~~

Electromechanical filters. Radio no. 6:41-44 Je '56.  
(Radio filters) (MLRA 9:8)

APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R000307010020-8"

8(0)

SOV/112-59-3-5817

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 3, p 223 (USSR)  
AUTHOR: Bronnikov, A. A.

TITLE: Electromechanical Filters With Rectangular Plate-Type Resonators  
(Elektromechanicheskiye fil'try s pryamougol'nymi plastinchatymi  
rezonatorami)

PERIODICAL: Radiotekhn. proiz-vo, 1957, Nr 11, pp 16-38

ABSTRACT: The parameters of iterative band filters used in 100-500-kc IF amplifiers can be materially improved if their Q-factor is increased by using mechanical resonators that have a Q-factor of 1,000-2,000 and up to 8,000-10,000 and higher. The connection of a mechanical oscillatory system to an electric circuit is realized through mechanical transducers. Filters using longitudinal oscillations of rectangular plate-type resonators are considered. A block diagram of the electromechanical filter consists of an electro-mechanical transducer that converts electrical oscillations into mechanical,

Card 1/3

SOV/112-59-3-5817

**Electromechanical Filters With Rectangular Plate-Type Resonators**

a chain of series-connected mechanical resonators, and a mechanoelectrical transducer that converts mechanical oscillations back into electrical. The mechanical-resonator chain, assumed to be a distributed-parameter system, is analyzed by matrix methods of the theory of nonuniform symmetrical lines and of the general filter theory. Relations are derived and graphs plotted that determine the filter characteristics depending on the parameters of their components. Methods and procedure for filter design are given. In view of the fact that an accurate solution of the problem of mechanical-resonator oscillations is very complicated, results are submitted of experimental investigations of frequency variation of a rectangular resonator depending on its geometric dimensions, on the nature and method of application of load. Secondary phenomena associated with the experimental techniques are discussed in detail. Results of many experiments are presented that permit evaluating the fundamental characteristics of piezoelectric and magnetostriction

Card 2/3

SOV/112-59-3-5817

**Electromechanical Filters With Rectangular Plate-Type Resonators**

electromechanical transducers (sensitivity, electromechanical-coupling factor, passband maximum width). Measuring instruments, filter design, and technology of filter manufacture are described. Bibliography: 50 items.

I.M.K.

Card 3/3

A. N. Задорин

Метод решения разностного уравнения для фильтрации конфигурации в задаче зонирования сплошной.

B. F. Галкин

Шароколесные выражениями частотных характеристик симметричного зеркала.

A. A. Ермаков

Расчет поливогодской системы электромагнитного зондирования геометрического фильтра.

P. G. Вереско

Расчет погрешности сопротивления электромагнитного зеркала.

10 часов  
(с 10 до 16 часов)

С. Н. Аверин,

Н. С. Степанов

Распространение волн в системах с фильтром параллелей.

40

A. L. Федяков,

A. P. Бон

Опыт в перспективе дальнейшего изучения СВЧ-тракта.

B. B. Григорьев-Рубин

Образ токов запуска затуманенных радиотехниче-

ских устройств.

А. Г. Константиновский

Влияние изменения стабильности режима работы на частоты аттенюационных радиометрических генераторов.

10 часов

(с 10 до 22 часов)

A. B. Соловьев

Практические методы электромагнитных измерений с горизонтом.

J. T. Kim

Влияние суммы спектральных интенсивностей на погрешность сопротивления.

B. A. Вереско

К определению характеристики поглощающих элементов радиотехнических устройств.

Report submitted for the Centennial Meeting of the Scientific Technological Society of  
Radio Engineering and Electrical Communications in. A. S. Popov (VURRS), Moscow,  
8-12 June, 1959

BRONNIKOV, Aleksandr Alekseyevich; TIKHOMIROV, O., red.; PODSHEBYAKIN, I.,  
tekhn. red.

[Stage-lighting equipment] Osvetitel'noe oborudovanie stseny.  
Moskva, Gos. izd-vo "Iskusstvo," 1961. 108 p. (Repertuar khudozhestvennoi samodeiatel'nosti, no.21) (MIRA 14:10)  
(Stage lighting)

BRONNIKOV, A.Ch.; VESELOV, V.K.

Some properties of potassium metaphosphate. Chem prum 12 no.11:  
613-614 N '62.

BRONNIKOV, A. I.

PA 55/49T28

USSR/Electricity  
Electric Power Plants  
Repairs

Jan 49

"Necessity for Having a Centralized Repair Organization for Power Stations," A. I. Bronnikov, Engr,  
1½ pp

"Elek Stants" No 1

In recent years repairs have been carried out in many power stations by regular station personnel, rather than by a special repair organization. Centralization of overhaul and repairs not only increases quality of work but requires smaller reserve of replacement parts (already tried out

USSR/Electricity (Contd.)

55/49T28

in Leningrad with satisfactory results). Special

ized repair shop organizations. These central-

55/49T28

PA 53/49T30

USSR/Electricity  
Electric Power Stations  
Steam Turbines

Jun 49

"An Experiment in Organizing Centralized Major  
Overhauls in Electric Stations," A. I. Bronnikov,  
Eng., 1 p.

"Elek Stants" No 6

Con Repair Factory of Mosenergo carried out a series of measures to improve centralized major overhaul of electric-station equipment. These included accurate estimates of work, better supervision of work performed at electric stations, organization of permanent repair crews at

53/49T30

USSR/Electricity (Contd)

Jun 49

stations, establishment of special areas for certain types of work, use of electric cranes and winches built at the factory, etc. In 1948, the factory carried out major overhauls on 24 boilers and 11 steam turbines.

53/49T30

BRONNIKOV, A.I., redaktor; SKVORTSOV, I.M., tekhnicheskiy redaktor.

[Mechanization of repair work in electric power stations]  
Mekhanizatsiya remontnykh rabot na elektrostantsiiakh. Moskva,  
Gos.energ.izd-vo, 1955. 87 p.  
(MLRA 8:11)  
(Electric power plants)

BRONNIKOV, Aleksandr Ivanovich; VINNITSKIY, D.Ya., red.; BUL'DYAYEV,  
N.A., tekhn. red.

[Repair of high-capacity steam boilers] Remont parovykh kot-  
lov bol'shoi moshchnosti. Moskva, Gosenergoizdat, 1963. 319 p.  
(MIRA 16:7)

(Boilers—Maintenance and repair)

"APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R000307010020-8

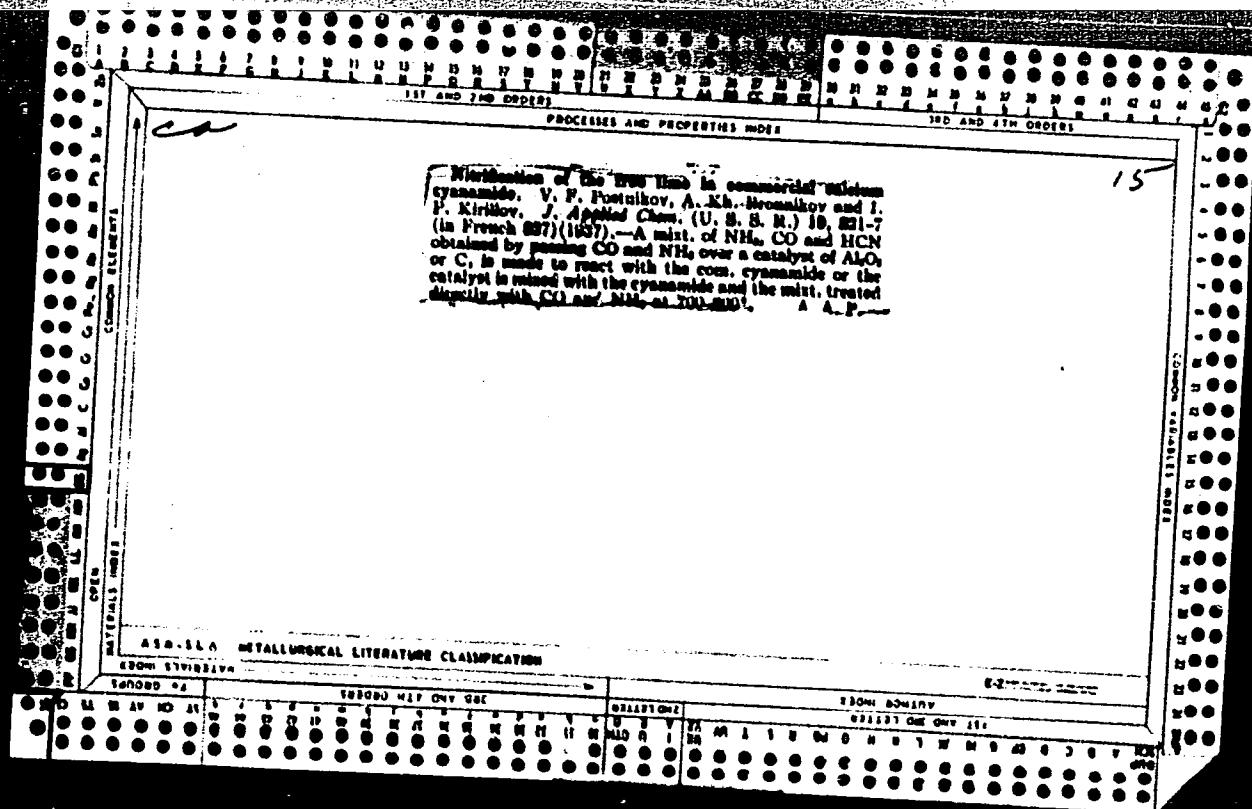
BRONNIKOV, A. KH., POSTNIKOV, V. F. and KUNIN, T. I.

"The production of sodium ferrocyanide from calcium cyanamide", Trans, Inst. Chem Tech. Ivanovo(USSR) 1, pp 77-86, 1935.

NOTE: See card for POSTNIKOV, V. F. for abstract.

APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R000307010020-8"



**Preparation of sodium hexametaphosphate.** A. Kh. Bremikov and V. P. Postnikov. *J. Applied Chem. (U. S. S. R.)*, 11, 1295-1310 (1938).—Monosodium phosphate was prepd. by the evapn. of a stoichiometric mixt. of  $H_3PO_4$  end pure  $Na_2CO_3$  to d. 1.45 and cryst., at 16° (if the mixt. be evapd. to d. 1.3, cryst. should be carried out at 3-4°). The crystals contained 49.7%  $Na_3PO_6$ . In the prepn. of the same compd. from tech. reagents evapn. to dryness is necessary, since the product does not recrystallize. The least corrosive action of the evapn. soln. was observed with Pt and the highest with Re. The best conditions for prepn. of  $(Na_3PO_6)_2$  were heating  $NaH_3PO_4 \cdot 2H_2O$  at 120° for 15-30 min. and rapid cooling of the molten mass by immersion of the container in cold water. The "activity" of  $(Na_3PO_6)_2$  was detd. by titration with 1% soln. of  $BaCl_2 \cdot 2H_2O$  at room temp. to appearance of opalescence of soln. and by the amt. of gypsum dissolved in the  $(Na_3PO_6)_2$  soln. The "activity" of  $(Na_3PO_6)_2$  was higher in the products contg. less pyrophosphate. The product contained about 82% of  $(Na_3PO_6)_2$ . Fe, cast Fe and steel cannot be used for the construction of app., but fused basalt and fire clay were used and gave satisfactory results. A. A. Podgorny

18

APPROVED FOR RELEASE: 08/22/2000 CIA-RDP86-00513R000307010020-8"

## PRINCIPLES AND PROBLEMS

**The properties of sodium hexametaphosphate.** A. Kh. Bromikov. *J. Applied Chem. (U. S. S. R.)* 12, 727-91 (1959) [in French, 1958]. Pure  $\text{Na}_6(\text{PO}_4)_6$  is 610% and is sol. in water to the extent 97.32 g. l. at 20° and 17.44 g. l. at 80°. It is sol. slowly hydrolyzes. The degree of hydrolysis increases with increased concn. and in the presence of acids. The velocity of hydrolysis increases with increasing temp.  $\text{Na}_2\text{CO}_3$  in small concns. (1-2%) stabilizes the  $\text{Na}_6(\text{PO}_4)_6$  soln., but has no effect in large concns.  $\text{Na}_6(\text{PO}_4)_6$  reacts almost completely with  $\text{CaSO}_4$  (but not with  $\text{CaCO}_3$ ,  $\text{BaCO}_3$  or  $\text{BaSO}_4$ ) with the formation of a complex of the type  $\text{Na}_2[\text{Ca}_2\text{P}_6\text{O}_{18}]$ , which is quite stable at room temp. Similar complexes are formed in the reaction of  $\text{Na}_6(\text{PO}_4)_6$  with Ca, Ba and Mg carbonates after 20 hrs. at 80°. In the presence of NaOH,  $\text{Na}_6(\text{PO}_4)_6$  transforms into one or several metaphosphates.

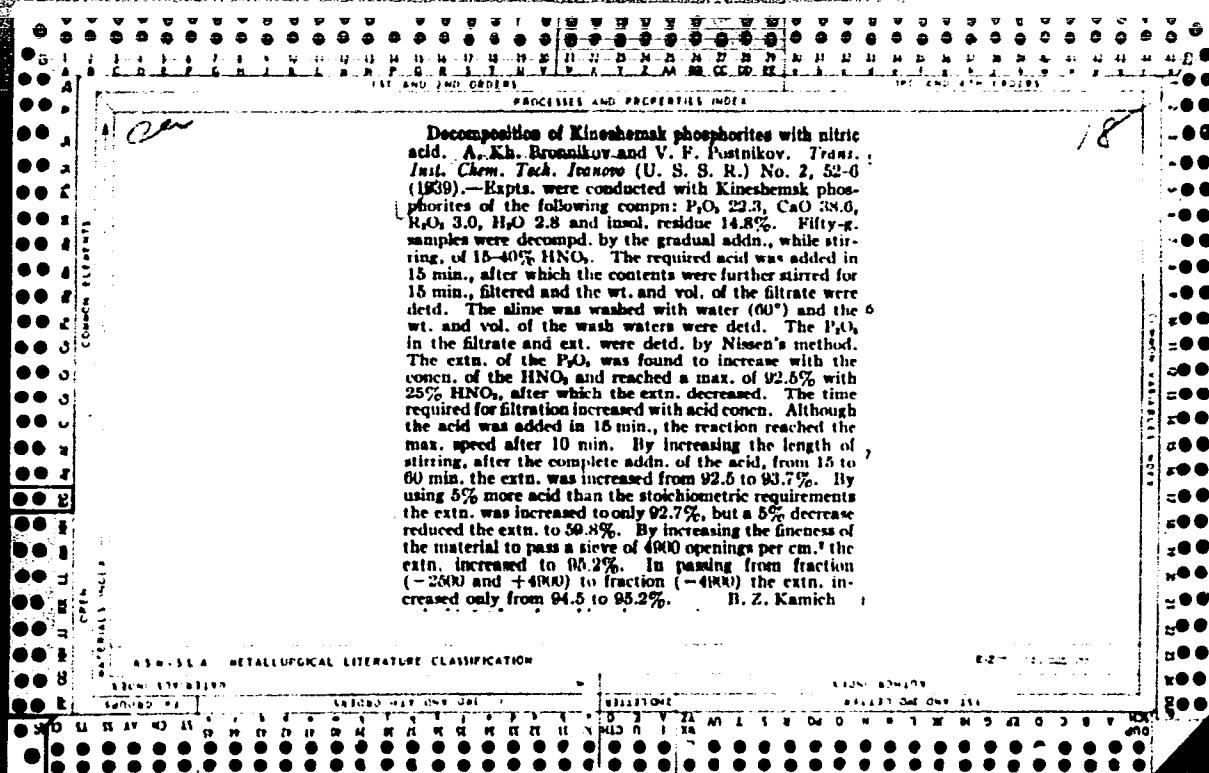
The transformation velocity increases with increasing temp. and increased concn. of NaOH. The degree of polymerization of metaphosphate was not detd.

A. A. Padgony

**METALLURGICAL LITERATURE CLASSIFICATION**

**APPROVED FOR RELEASE: 08/22/2000**

CIA-RDP86-00513R000307010020-8"



5(1)

AUTHOR:

Bronnikov, A. Kh.

SOV/153-53-3-16/50

TITLE:

The Production of Potassium and Magnesium Thermophosphates  
(O Poluchenii kaliyevykh i magniyevykh termofosfatov)

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedenii. Khimiya i khimicheskaya tekhnologiya, 1958, Kr 3, pp 86 - 92 (USSR)

ABSTRACT:

The working of natural phosphates by thermal methods becomes more and more important. At the NIUIF (=Nauchnyy institut po udobreniyam i insektofungisidam im. Samoylova = Scientific Institute for Fertilizers and Insectofungicides imeni Samoylov) such investigations were carried out by Bekturov and his collaborators (Refs 3,4) et al. under the supervision of Vol'fovich (Refs 1,2). The aim of the present paper is the determination of the conditions of fusion and sintering of apatite concentrate with potassium and magnesium sulfate, and with a double salt of the langbeinite type ( $K_2SO_4 \cdot 2MgSO_4$ ). For that purpose the components were either fused or sintered together. The tables 1-3 give the results. The sintering of a

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The Production of Potassium and Magnesium Thermophosphates SOV/153-56-3-16/50  
concentration with magnesium sulfate in a steam atmosphere as well as the effect of the blowing through of a steam-air mixture were investigated separately. Tables 4 and 5 show the results obtained. The thermophosphate produced was subjected to a radiographic and chemical analysis. Based on the results the reaction mechanism assumed is mentioned. The results of the paper made the authors conclude the following: 1) In fusing (up to 1300°) and sintering potassium sulfates with an apatite concentrate the reaction does not take place. 2) Due to the fusion of the apatite concentrate with potassium and magnesium sulfate a product is formed that has not a high  $P_2O_5$  content: 11-11.5%. 3) The best results were obtained by sintering the concentration with magnesium sulfate in the presence of steam. During this sintering an exchange decomposition between  $Ca_5F(PO_4)_3$  and  $MgSO_4$  takes place. 4) The thermophosphate produced contains: 19.9-20.3% of the total  $P_2O_5$ , 18.8% of the  $P_2O_5$  soluble in citric acid, 0.35-0.4% F, 18.4%  $MgO$  and 26.3%  $CaO$ . There are 5

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The Production of Potassium and Magnesium Thermophosphates SOV/153-58-3-16/30  
tables, and 7 references, 5 of which are Soviet.

ASSOCIATION: Ivanovskiy khimiko-tehnologicheskiy institut (Ivanovo  
Institute of Chemical Technology); Kafedra tekhnologii  
neorganicheskikh veshchestv (Chair of the Technology  
of Inorganic Substances)

SUBMITTED: September 9, 1957

Card 3/3

BRONNIKOV, A.Kh.; IMKHANITSKAYA, S.M.

Properties of potassium metaphosphates. Zhur. prikl. khim. 33 no.8:  
1733-1739 Ag '60. (MIRA 13:9)

1. Ivanovskiy khimiko-tehnologicheskiy institut.  
(Potassium metaphosphate)

BRONNIKOV, A.Kh.

Thermal stability of magnesium sulfate. Izv.vys.ucheb.zav.;  
khim.i khim.tekh. 4 no.3:433-436 '61. (I.I.R.A 14:10)

1. Ivanovskiy khimiko-tehnologicheskiy institut, kafedra  
tekhnologii neorganicheskikh veshchestv.  
(Magnesium sulfate—Thermal properties)

BRONNIKOV, A.Kh.; VESELOV, V.K.

Properties of potassium metaphosphate. Zhur.prikl.khim. 35  
no.4:739-746 Ap '62. (MIRA 15:4)

1. Ivanovskiy khimiko-tehnologicheskiy institut.  
(Potassium metaphosphates)

BRONNIKOV, A.N.

Voltmeter with a spread dial. Izm. tekhn. no. 9:37 S '63.  
(MIRA 17:1)

L 7846-66 EWP(e)/EPA(e)-2/EWT(m)/EWP(i)/EPA(w)-2/EWP(t)/EWP(b) IJP(c)  
 ACC NR: AP5028119 JD/WH SOURCE CODE: UR/0048/65/029/011/2055/2058  
 AUTHOR: Klimov, V.V.; Nakhodnova, A.P.; Zhabkina, G.M.; Morgacheva, N.I.; Bronnikov, A.N.  
 ORG: none

TITLE: Ferroelectric properties of barium, lead, and calcium titanate base solid solutions /Report, Fourth All-Union Conference on Ferro-electricity held at Rostov-on-the Don 12-16 September 1964/ 1D B

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 11, 1965, 2055-2058 14 MM

TOPIC TAGS: ferroelectric material, solid solution, barium, lead, calcium, titanate, Curie point, lattice parameter

ABSTRACT: The authors have determined the Curie points of 17 barium titanate-rich solid solutions of the barium titanate - lead titanate - calcium titanate system; the study was undertaken in view of the technical importance of the materials and the discordance of the available data on them. Uniform mixtures for synthesis were obtained by spray-drying solutions of barium, lead, calcium, and titanium nitrates. The resulting powders were roasted for 2-3 hours at 1000°C, compressed into 20 mm diameter 1.5-1.8 mm thick disks, and sintered at 1260-1340°C for 1-2 hours. Specimens for which the water absorption was less than 0.55% and the porosity less than 2-3% were selected for investigation. The selected specimens were analyzed, x-ray powder photographs were recorded, and their Curie points were determined within 2°C by di-

15.44

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L 7846-66

ACC NR: AP5028119

electric constant measurements. It was found that the Curie point increased with decreasing barium content when either the calcium content, the lead content, or their ratio was held constant. When the barium content was held constant the Curie point increased with increasing lead content. The variation of the Curie point with composition in the region of relatively high calcium content differed from that found by McQuarry (J.Amer.Ceram. Soc., 40, No. 2, 35 (1957)) and T.Ikeda (J.Phys.Soc. Japan, 3, No. 4, 335 (1958)), the present measurements giving the higher Curie points in this region. The solid solutions with the higher Curie temperatures had unit cells with larger volumes and, in agreement with the findings of McQuarry and Ikeda (loc.cit. supra), higher degrees of lattice tetragonality. The increase of the Curie temperature with increasing calcium, decreasing barium, and constant lead content contradicts the current opinion that the Curie temperatures of ferroelectrics with the perovskite structure are increased by increasing the volume and polarizability of the ions at the A-sites in  $ABO_3$  crystals. The discrepancy between the present results and those obtained by other authors with single compounds and binary systems is obviously to be explained by the fact that the laws governing the behavior of three-component systems containing A-type ions with different electronic structures are more complex than those applicable to binary systems. The discovery of these laws will require further investigation. Orig. art. has: 5 figures and 1 table.

SUB CODE: SS, EM

SUBM DATE: 00/

ORIG. REF: 003 OTH REF: 006

Card 2/2

22(1)  
31(5)

SOV/3-59-4-32/42

## AUTHOR:

Bronnikov, A.V., Candidate of Technical Sciences

## TITLE:

A Students' Design Office

## PERIODICAL:

Vestnik vysshey shkoly, 1959, Nr 4, pp 77-78 (USSR)

## ABSTRACT:

On 11 April 1957 the Students Design Office (SKB) was legalized by an order of the Leningrad Shipbuilding Institute. What distinguishes this office from students scientific circles organized at the Institute, is the indispensable demand that every member of the Office must carry the work entrusted to him to a practical result and not be satisfied with the usual report. The SKB is attached to the Chair "Projecting of Ships". All the students belonging to the SKB work on some theme, and sometimes on two. Since its beginning the SKB has completed several important works. The most significant and labor-consuming work was the projecting and building of a cruising, sailing and motor yacht for the institute. It was the second large sea-going steel yacht (18 m long and 24 ton displacement) of the USSR. The students worked out the

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A Students' Design Office

SOV/3-59-4-32/42

technical project which was subsequently approved by the Registr SSSR (USSR Register). The yacht is being built at the Zavod imeni A.A. Zhdanova (Plant imeni A.A. Zhdanov), which decided to build a similar yacht for their own use. The author emphasizes the valuable training experience which the students gained in designing the yacht and describes in detail the work performed by the student - members of the SKB. In his report the author mentions the Tsentral'nyy nauchno-issledovatel'skiy institut morskogo flota (Central Naval Scientific-Research Institute).

ASSOCIATION: Leningradskiy korablestroitel'nyy institut (Leningrad Shipbuilding Institute).

Card 2/2

"APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R000307010020-8

BRONNIKOV, A.V.

Effect of hull elements and calculated compartments on the  
grounding of a ship after symmetrical flooding. Trudy LKI  
no.28:5-16 '59.

(MIRA 15:5)

1. Kafedra proyektirovaniya sudov Leningradskogo korablestroitel'nogo  
instituta.  
(Naval architecture)

APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R000307010020-8"

BRONNIKOV, A. V kand. tekhn. nauk, starshiy prepodavatel'

Shipbuilding industry in foreign countries during the postwar  
period. Mor. flot 19 no. 5-39-41 My '59. (MIRA 12:7)

1. Leningradskiy korabestroitel'nyy institut.  
(Shipbuilding)

"APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R000307010020-8

BRONNIKOV, A.V., kand. tekhn. nauk

Design of modern shelter-deck vessels. Sudostroenie 25 no.7:4-7  
Jl '59.  
(Naval architecture) (MIRA 12:12)

APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R000307010020-8"

"APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R000307010020-8

BRONNIKOV, A.V., kand.tekhn.nauk

Structural design and equipment for cargo areas of cargo ships.  
Sudostroenie 26 no.3(209):5-9. Mr '60. (MIRA 14:11)  
(Freighters)

APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R000307010020-8"

NOGID, Lev Markovich; POPOV, G.I., kand. tekhn. nauk, retsenzent;  
BRONNIKOV, A.V., red.; SHAKHOVA, V.M., red.

[Design of seagoing ships] Proektirovanie morskikh sudov.  
Leningrad, Izd-vo "Sudostroenie." Pt.1. [Methods of determining  
the elements of a proposed ship] Metodika opredeleniya  
elementov proektiruemogo sudna. 1964. 358 p. (MIRA 17:5)

BRONNIKOV, A.V., kand. tekhn. nauk

Determining the Admiralty coefficients at the initial stages of  
ship design. Sudostroenie 30 no.7:9-13 Jl '64. (MIRA 18:9)

BRONNIKOV, A.V.

Hatch dimensions of dry cargo ships and specifications for  
open-type ships. Sudostroenie no. 11:21-23 N '65  
(MIRA 19:1)

"APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R000307010020-8

~~BRONNIKOV, D., nachal'nik uchastka.~~

~~Elastic non-sectional shields. Mast.ugl. 2 no. 7:14-16 J1 '53.~~

~~(MLPA 6:6)~~

~~1. No.4 shakhta "Maneikha" Kombinata Kuzbassugol'.~~

~~(Coal mines and mining--Safety measures)~~

APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R000307010020-8"

BRONNIKOV, D.M.

AGOSHKOV, M.I.; BRONNIKOV, D.M.

Determination of the minimum economical metal content in ores.  
Trudy Inst.gor.dela 1:47-51 '54. (MLRA 7:12)

1. Chlen-korrespondent AN SSSR (for Agoshkov)  
(Ores--Sampling and estimation)

BRONNIKOV, D.M.; NIKANOROV, V.I.

Determination of the limit of sectional mining of narrow ore veins.  
Trudy Inst.gor.dela 1:52-58 '54. (MLRA 7:12)  
(Ores) (Mining engineering)

"APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R000307010020-8

BRONNIKOV, D.M., kandidat tekhnicheskikh nauk; GAGULIN, M.V., gornyy inzhener

Experiment of boring deep holes with the aid of steel shot. Gor.zhur.  
no.2:39-43 P'55. (MIRA 8:7)  
(Boring)

APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R000307010020-8"

AGOSHKOV, M.I.; BRONNIKOV, D.M., kandidat tekhnicheskikh nauk; KRASAVIN,  
G.A., gornyy inzhener.

Testing data on boring rigs having sinking perforators. Gor.zhur.  
no.5:17-22 My '56.  
(MLRA 9:8)

1. Chlen-korrespondent AN SSSR (for Agoshkov); 2. Institut gorno-  
go dela AN SSSR.

(Rock drills)

"APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R000307010020-8

BRONNIKOV, D.M.; GAGULIN, M.V.

Basic problems of blasthole drilling using the steel-shot technique. Trudy Inst.gor.dela 3:89-97 '56.  
(Boring) (MLRA 9:8)

APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R000307010020-8"

SKOCHINSKIY, A.A.; TERPIGOROV, A.M.; SHEVYAKOV, L.D., SERGEYEV, A.A.; ZAKHAROV, P.A.; USKOV, S.I.; AGOSHKOV, M.I.; MEL'NIKOV, N.V.; BRONNIKOV, D.M.; YENIKEYEV, N.B.; PROTOPOPOV, D.D.; SUDOPLATOV, A.P.; BARON, L.I.; MAN'KOVSKIY, G.I.; NAZARCHIK, A.F.; TERPOGOSEV, Z.A.; BARSUKOV, F.A.; POMORTSEV, A.D.; DEMIDYUK, G.P.; MOLCHANOV, P.V.; MAKSIMOVA, Ye.P., GRIBIN, A.A.; BARONENKOV, A.V.; SINDAROVSKIY, N.S.; BOGOMOLOV, V.I.; KHODOV, L.V.; MOSKAL'KOV, Ye.F.; GONCHAROV, T.I.

Aleksandr Vasil'evich Kovazhenkov; obituary. Bezop. truda v prom.  
l no.12:35 D '57. (MIRA 12:3)  
(Kovazhenkov, Aleksandr Vasil'evich, 1906-1957)

SKOCHINSKIY, A.A.; TERPIGOROV, A.M.; SHEVYAKOV, L.D.; AGOSHKOV, M.I.;  
MEL'NIKOV, N.V.; BRONNIKOV, D.M.; YENIKEYEV, N.B.; NAZARCHIK, A.F.;  
TERPOGOsov, Z.A.; BARSUKOV, F.A.; SKHOGLEYEV, A.A.; PROTOPOPOV, D.D.;  
SUDOPLATOV, A.P.; BARON, L.I.; MAN'KOVSKIY, G.I.; POMORTSEV, A.D.;  
DEMIDYUK, G.P.; KAPITANOV, T.V.; MOLCHANOV, P.V.; MAKSIMOVA, Ye.P.;  
GRIBIN, A.A.; BARONENKOV, A.V.; SINDAROVSKIY, N.S.; BOGOMOLOV, V.I.;  
KHODOV, L.V.; MOSKAL'KOV, Ye.F.

Aleksandr Vasil'evich Kovazhenikov; an obituary. Gor. zhur. no.12:  
72 D '57. (MIRA 11:1)

(Kovazhenkov, Aleksandr Vasil'evich, d. 1957)

PHASE I BOOK EXPLOITATION 879

Akademiya nauk SSSR. Institut gornogo dela

Voprosy razrabotki mestorozhdeniy poleznykh iskopayemykh (Problems in the Exploitation of Mineral Ore Deposits) Moscow, Izd-vo AN SSSR, 1958. 251 p. 4,000 copies printed.

Resp. Ed.: Mel'nikov, N.V., Corresponding Member, USSR Academy of Sciences; Ed. of Publishing House: Grigorash, K.I.; Tech. Ed.: Makuni, Ye.V.

PURPOSE: This book is intended for students and instructors of mining engineering vtuzes and for scientific, engineering and technical personnel engaged in the ore-mining and coal-mining industries.

COVERAGE: The book is a collection of 17 articles written by 18 authors under the direction of Professor Mikhail Ivanovich Agoshkov. It deals with the principles of mining engineering, particularly

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## Problems in the Exploitation (Cont.) 879

those applied to underground mining, surveys the technology of coal and ore mining, and discusses the most important practical methods of mine exploitation. The book is divided into four parts. Part 1 discusses the general problem of mining, Part 2 underground exploitation of ore deposits, Part 3 underground exploitation of coal deposits, and Part 4 open-cut mining processes. The articles are accompanied by diagrams, tables and bibliographic references.

## TABLE OF CONTENTS:

## PART I. GENERAL MINING PROBLEMS

Agoshkov, M.I., Corresponding Member of the Academy of Sciences, USSR and Bronnikov, D.M.. Certain Economically Advantageous Factors in Mining 5

The authors discuss the analytical-mathematical method of estimating economically advantageous cost of production and the selection of optimum conditions for given industrial factors. This analytical approach has been advocated for many years by Academician A.A.

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Problems in the Exploitation (Cont.) 879

Skochinskiy. There are 5 figures and 12 Soviet references.

Kovazhenkov, A.V., Candidate of Technical Sciences (Deceased), and Barsukov, F.A., Mining Engineer. Breaking and Coarse-Crushing Rocks by Blasting 23

This is an evaluation of the main factors affecting the type of blastings in ore-crushing processes. Patterns of single and group shooting are discussed and a classification of ore materials is presented. The text is accompanied by 8 diagrams and 9 graphs. There are no references.

Lipson, M.A., Candidate of Technical Sciences. Design of Permanent Pillars (The Use of Graphic Methods in Solving Problems in Rock-pressure Theory 33

The author recommends the replacement of empirical, often erroneous, formulas by graphic-analytical methods based on well-known theories of rock pressure. Such a method was developed by S.S.

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Problems in the Exploitation (Cont.) 879

Golushkevich with reference to statically determined masses. A practical case is considered to illustrate the hiatus between empirical formulas and well-developed theories. There are 27 figures, 2 tables, and 19 references of which 13 are Soviet, 4 German, 1 Rumanian, and 1 Hungarian.

PART II. SUBSURFACE EXPLOITATION OF MINERAL DEPOSITS

Agoshkov, M.I., Corresponding Member of the Academy of Sciences, USSR, and Mochalin, M.P., Candidate of Technical Sciences. The Effect of Broken Ore Size on the Rate of Output 73

In mining hard ores the productivity of a mine can be considerably increased by the efficiency of drilling and blasting operations. To reach high production levels the problems of haulage and hoisting must be satisfactorily solved. Scraping time, idling, secondary crushing, the effect of the size of broken rock on the efficiency of transportation, etc. are analytically examined. There are 6 figures and 7 bibliographic references, of which 6 are Soviet

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Problems in the Exploitation (Cont.) 879

and 1 American.

Agoshkov, M.I., Corresponding Member of the Academy of Sciences, USSR; Trumbachev, V.F., Candidate of Technical Sciences; and Mel'nikov, Ye.A., Mining Engineer. Analysis of Stress Conditions and the Stability of Roofs and Interchamber Pillars in Areas of the Kursk Magnetic Anomaly 87

Nearly vertically dipping, tightly folded and compressed ferruginiferous quartzites are extracted by the chamber-pillar method with permanently remaining pillars. To test the adequacy of selected dimensions for both components an analytical method for extreme equilibria and suitable tests are presented. There are 16 figures, 4 tables, and 6 bibliographic references, of which 4 are Soviet and 2 American.

Spivakovskiy, A.O., Corresponding Member of the Academy of Sciences, USSR, and Smoldyrev, A.Ye., Candidate of Technical Sciences. Stationary and Mobile Pneumatic Flushing Installations for Nonferrous Metal Mines 103

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## Problems in the Exploitation (Cont.) 879

The authors describe techniques and machinery used in silting mines to prevent subsidence, and offer suggestions for the further mechanization of this process. The text contains 8 figures. There are no references.

Baron, L.I., Doctor of Technical Sciences, and Fugzan, M.D., Stalin Prize Laureate. A Study of the Relationship Between the Angle of Natural Repose of Broken Ore and Its Size 115

It has been observed that the angle of natural repose of ore, an important factor which affects various mining designs, decreases with an increase in the size of broken ore. The authors discuss recent analytical and numerical data on the subject. There are 5 figures, 4 tables, and 2 Soviet references.

Baron, L.I., Doctor of Technical Sciences, and Voronyuk, A.S., Candidate of Technical Sciences. Method of Determining the Economic Expediency of Utilizing Underground Crushing Machinery 122

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## Problems in the Exploitation (Cont.) 879

Subsurface crushing offers the following advantages: 1) better working conditions and increased safety, 2) increased productivity, 3) more proficient mucking and tramping, and 4) more efficient utilization of hauling and hoisting equipment. Various designs are submitted by the authors. There are 4 figures, 12 tables, and 36 references, of which 24 are Soviet, 9 English, 2 German and 1 French.

Bronnikov, D.M., Candidate of Technical Sciences, and Chistov, V.A., Mining Engineer. The Effect of Blasting-hole Deviation on Ore Production 140

The authors propose and describe methods and techniques for increasing ore output through the control of boreholes by means of electric pulse and gyroscopic equipment. There are 14 figures and 5 tables. There are references.

Baron, L.I., Doctor of Technical Sciences, and Voronyuk, A.S., Can-

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## Problems in the Exploitation (Cont.) 879

Candidate of Technical Sciences. Approximate Evaluation of the True  
Volume of Broken Ore by Its Three Maximum Dimensions 153  
The authors provide a practical approach for classifying bro-  
ken ore of different size and computing voids. There are 4 ta-  
bles, 1 figure, and 2 Soviet references.

Kovazhenkov, A.V., Candidate of Technical Sciences (Deceased), and  
Barsukov, F.A., Mining Engineer. Selecting Crosscut Dimensions in  
Mining by Blasting 157

The article describes the various techniques used in crosscut-  
ting in hard and very hard rocks. There are 3 figures, 4 tables,  
and 6 Soviet references.

Baron, L.I., Doctor of Technical Sciences and Fugzan, M.D., Stalin  
Prize Laureate. Tests Demonstrating the Effect of the Nonuniformi-  
ty of Ore Discharge 166  
To insure uniformity in ore loading in mining apatite by shrink-

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## Problems in the Exploitation (Cont.) 879

age and block-carving, a worked out block filled with granulated ore and small wooden cubes (1 cc. in size) was used as a model. The passage of such wooden models provides an idea of the pattern of ore passage. There are 8 figures, 2 tables, and 2 Soviet references.

## PART III. SUBSURFACE EXPLOITATION OF COAL DEPOSITS

Novikov, K.P., Candidate of Technical Sciences. Rational Values for Elements in Longwall Methods of Coal Extractions 177

The technical and economic problems in coal production depend on a number of factors such as thickness and dip of seam, timbering, etc. For example, the length of the working face depends on the thickness of the seam. The author gives an analytical estimate of all factors influencing coal mining. There are 9 figures. There are no references.

Baranovskiy, V.I., Candidate of Technical Sciences. Development

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Problems in the Exploitation (Cont.) 879

Openings in Unstable Rocks Subject to Heaving in Moderately Pitching  
Coal Seams in the Donbass 197

The author reviews the problem of controlling heaving, which increases with depth, and the flaking and disintegration of roofs. The technical and economic indices of a coal mine, such as labor and transportation, are unfavorable affected by such factors. The problem is how to reduce these factors to a practical minimum. There are 15 figures. There are no references.

PART IV. OPEN-CUT MINING

Krasnikov, A.S., Candidate of Technical Sciences. Selecting the Best Width for Excavator Operations in Stationary Excavation Systems 217

A theoretical treatment of factors affecting the productivity of stationary excavators and a selection of the best parameters for shovel width and revolving angles are presented by the author. There are 6 figures and 2 tables. There are no references.

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## Problems in the Exploitation (Cont.) 879

- Potapov, M.G., Candidate of Technical Sciences. Operation of Open-Cut Electric Locomotives Loading Trains Directly from Excavators 231  
The author presents a theoretical study of loading diagrams for electric locomotives. These concern the electromechanical characteristics of the motor in relation to the efficiency of operations. There are 4 figures and 2 tables. There are no references.

[Author not given]. Mikhail Ivanovich Agoshkov (Fiftieth Birthday Anniversary) 247

This is a brief biographical sketch of Professor M.I. Agoshkov, in honor of his 50th birthday. Professor Agoshkov, a distinguished mining engineer and a Corresponding Member of the Academy of Sciences, USSR, is the author of more than 50 published works. He has received a number of medals and honorific titles, among them the Order of the Red Banner of Labor and the Badge of Honor.

AVAILABLE: Library of Congress

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12-18-58

SCV/118-58-2-6/19

AUTHORS: Agoshkov, M.I., Corresponding Member of AS USSR, Bronnikov, D.M., Candidate of Technical Sciences and Krasavin, G.A., Engineer

TITLE: Drilling Units with Sinking Percussion Drills (Burovyye agregaty s pogruzhnymi molotkami)

PERIODICAL: Mekhanizatsiya trudoyemkikh i tyazhelykh rabot, 1958, Nr 2, pp 17-18 (USSR)

ABSTRACT: The drilling of deep bore holes for the breaking of hard ores involves a large expenditure of time and money. To find the most efficient means of drilling the following rigs with sinking pneumatic drills were tested under similar conditions at different mines: BA-100M, constructed by the West Siberian Branch of the AS USSR and Kuznetskiy metallurgicheskiy kombinat (the Kuznetsk Metallurgical Trust); BES-2M constructed by the Krivorozhskiy nauchno-issledovatel'skiy gornorudnyy institut (the Krivoy Rog Scientific Research Mining Institute) and produced by the plant "Kommunist"; BMK-2b - constructed by the Kyshtymskiy mekhanicheskiy zavod

Card 1/2

## Drilling Units with Sinking Percussion Drills

SOV/118-58-2-6/19

(the Kyshtym Mechanical Plant) and PBA-1 constructed by the Institut gornogo dela AN Kazakhskoy SSR (the Institute of Mining Engineering of the AS of the Kazakhskaya SSR) and Leninogorskij kombinat (the Leninogorsk Trust). The results of the tests are shown in tables 1 and 2. These tests showed the superiority of the BA-100M drilling units, explained by the relatively low weight of its percussion drill (13 kg), its force of impact (7.5 kg) and the high frequency of impacts (1900 a minute). These tests showed that the drilling speed in one time-unit is directly proportional to the number of impacts (Figure 2 and Table 3). Moreover, as the BA-100M unit at the same time flushes the bore hole with water, it creates better working conditions. Finally all auxiliary operations connected with the operation of this unit took much less time than with other tested drilling units (Figure 3). The authors recommend perfecting and stepping up the production of the BA-100M drilling units. Reduction of the diameter of the drill and of the bit as well as a further increase in the frequency of drill strokes is also recommended. There are 3 tables, 2 graphs and 1 photo.

1. Drilling machines--Operation      2. Drilling machines--Test results

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AUTHOR: D.M. Bronnikov (Moscow) SOV/24-58-6-29/35  
TITLE: On Determining the Optimum Diameter of a Borehole for  
Underground Breaking-up of Ores (Ob opredelenii ratsional'nogo diametra skvazhin dlya podzemnoy otboyki rud)  
PERIODICAL: Izvestiya akademii nauk SSSR, Otdeleniye tekhnicheskikh  
nauk, 1958, Nr 6, pp 139-141 (USSR)  
ABSTRACT: For determining the relation between the diameter of the bore-hole, the line of least resistance and the specific consumption of explosive in the case of a constant  $d/q$  value, the author calculates four variants of ratios of these magnitudes which can be materialised in practice. The optimum borehole is considered to be the one for which the auxiliary times are lowest. He concludes that with improving techniques and organisation of the

On Determining the Optimum Diameter of a Borehole for Underground  
Breaking-up of Ores

sov/24-58-6-29/35

drilling work it will be possible to deduce the auxiliary time and to increase the pure drilling time, and thus the use of small diameter boreholes will become more advantageous.

There is 1 graph, and there are 9 references, all Soviet.

SUBMITTED: January 15, 1958

BARANOVSKIY, V.I.; BROMNIKOV, D.M.; KORSHUNOV, S.I.; KULIKOV, A.P.; PARUSIMOV, V.F.; ROZENTRETER, B.A.; RUSHCHINSKIY, M.V.; SUDOPLATOV, A.P.; TERPOGOSOV, Z.A.; SHEVYAKOV, L.D., akademik, otv.red.; GUS'KOVA, O.M., tekhn.red.

[Terminology connected with underground mining systems in solid mineral deposits] Terminologija sistem razrabotki mestorozhdenii tverdykh poleznykh iskopaemykh podzemnym sposobom. Moskva, 1959. 13 p. (Sbornik rekomenduemykh terminov, no.51) (MIRA 13:1)

1. Akademiya nauk SSSR. Komitet tekhnicheskoy terminologii.
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(Mining engineering--Terminology)

BARON, Lazar' Izrailevich, prof., doktor tekhn.nauk; FUGZAN, Mark Davidovich, kand.tekhn.nauk; BRONNIKOV, D.M., otd.red.; AROW, G.M., red.izd-va; ZENDEL', M.Ye., tekhn.red.

[Study of ore delivery in panel mining systems with forced sublevel caving] Issledovanie vypuska rudy pri sisteme etazhnogo prinuditel'nogo obrushenija s vyemkoi poliami. Moskva, Izd-vo Akad.nauk SSSR, 1959. 106 p. (MIRA 12:6)  
(Mining engineering)

BRONNIKOV, D.M.

Studying shot hole drilling in deposits by hard ores. Trudy  
MGRI 34:47-52 '59. (MIRA 13:12)  
(Boring)

BRÖNNIKOV D. M.

1667/2008

1341

**Scientific Problems (Cont.)**

2. Comparative Evaluation of Drilling Blast-holes  
with Reusable Cutters and Pneumatic Hammers in Underground Ore

3. Analysis of the Distribution of Working Time  
Spending in Drilling Blast-holes with Pneumatic Hammer Units

4. Study of the Basic Parameters  
of Dressed Ore

5. Technique of Determining the Minimum Lump Size  
in a Bolted Set

6. Ore Dressing and Its Basic Indexes

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**APPROVED FOR RELEASE: 08/22/2000**

**CIA-RDP86-00513R000307010020-8"**

AGOSHKOV, M.I.; BRONNIKOV, D.M.; KOVAZHENKOV, A.V. [deceased]; NIKANOROV, V.I.; MOCHALIN, M.P.; VORONYUK, A.S.: Prinimali uchastiye: KRASAVIN, G.A.; GAGULIN, M.V.; BARSUKOV, F.A.. TERPOGOSOV, Z.A., kand. tekhn.nauk, otv.red.; NIKOLAYEVA, I.N., red.izd-va; DOROKHINA, I.N., tekhn.red.

[Investigating the main technological processes of underground mining of thick hard ore deposits] Issledovanie osnovnykh tekhnologicheskikh protsessov pri podzemnoi razrabotke moshchnykh mestorozhdenii krepkikh rud. Moskva, Izd-vo Akad.nauk SSSR, 1959. 359 p. (MIRA 13:2)

1. Chlen-korrespondent AN SSSR (for Agoshkov).  
(Mining engineering) (Ore dressing)

BRONNIKOV, D. M. Doc Tech Sci -- (diss) "Study of the parameters of blast  
~~drilling of pits in~~ <sup>the</sup> underground working of thick hard-ore deposits."  
Mos, 1959. 27 pp (Acad Sci USSR. Inst of Mining), 150 copies. List of auth<sup>or's</sup>  
works at end of text (15 titles) (KL, 52-59, 119)

*Bogdanov, D. M.*

SOV/180-59-1-27/29  
**AUTHOR:** Solomin, M.  
**TITLE:** Conference at the Leading Ore-Mining Combine in Tymy-Aus  
 (Lehardino-Balkarskaya) (Soveshchaniye na pereodove kombinata  
 (porodudoroy proizvodstvennosti v Tymy-Ause) (Khar'ino-  
 Balkarskaya))

**PERIODICAL:** Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh  
 nauk, Metallostroy i topilov, 1959, nr 2, p 123 (USA)

**ABSTRACT:** A conference was convened on 15-18th September 1958 at  
 the Tymy-Aus Combine by the Institut formo po delu  
 Akademii nauk SSSR (Mining Institute of the Academy of  
 Sciences of the USSR). Consideration was given to the  
 scientific and technical committee of the State  
 Scientific and Technical Committee of the Council of  
 Ministers of the USSR (the Khar'ino-Balkarskaya)  
 Soveshchaniye (Scientific and Technical Committee) and the  
 Technico-technical obshchestvo (Assembly of tailoring  
 (Scientific and Technical Society for non-ferrous  
 metallurgy). The following reports were presented:  
 N.M. Kozel'shko, "Otkr. (probably a mistake for GRK) (State  
 Scientific and Technical Committee) - Abstracts" of the  
 Council of Ministers of the USSR, "Main Lines for  
 Technical Development in the Underground Mining of Ores  
 of Non-Ferrous and Rare Metals in 1959-1965";  
 N.I. Asobishvili, "UDM in SSSR (USA USSR), Improvement in the  
 Methods of the Underground Working of Large Deposits of  
 Hard Ores; V.G. Drubik, "Practical Experience in the  
 Use of the Single-State Method of Working Deposits Under  
 Conditions Preserving the Surface of Covering"; A.A. Jorjani,  
 Institut Uprugosti (Unplanned Institute), "Experience in  
 the Working and Safety Precautions of Inflammable Ores  
 Ores"; A.G. Shpal'nikov, "Institut Uprugosti metalturgicheskogo  
 (Metallurgical Institute), "Economic Effectiveness of  
 Using Powerful Equipment in Working Large Deposits";  
 D.P. Bobrov, "Work of the VNIIG Institute on the  
 Construction of Modern Borning Equipment"; D.M. Brodskiy,  
 "Grazhdanmontazh (Grazhdanmontazh) LLC (Grazhdanmontazh  
 LLC) - Comparative Assessment of  
 Methods of Charcoal Burning"; N.A. Chirikov,  
 "Laboratory of the USSR (Grazhdanmontazh LLC) in Moscow,  
 AS USSR) on the Possibility of Using this Proprietary  
 Borning Ore Deposits"; A.L. Bud'ko and A.A. Sazan,  
 "Omsk Institute of USSR, "Systems of Working Large  
 Hard-Ore Deposits in Foreign Quarries";

V.V. Mednik, RGN Ukr. SSR (Mining Institute Ukr. SSR), "Maps  
 of Comatic Dust in Mining Operations". After this the  
 conference heard reports on work at the Moril'sk'iy  
 hospital (Moril'sk'iy hospital), the Khar'ino-Balkarskaya  
 (Khar'ino-Balkarskaya) coalmines, Tschudik  
 (Upper quarry) of the kombina, Balkarsk (Balkarsk-Alin deposit);  
 of the Peterstoremstroy (Peterstoremstroy) department;  
 Lenino-Balkarskaya kombina (Lenino-Balkarskaya combine), Tymy-  
 Auskiy kombinat (Tymy-Aus combine), Salair'skiy rudnik  
 (Salair quarry) and the Dzhetsaganskoye matorozhdeniye  
 (Dzhetsagan deposit). The conference decided on  
 measures for improving mining.

Card 1/3

Card 2/3

Card 3/3

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BRONNIKOV, D.M.

Selecting parameters for a network of boreholes in ore deposit  
mining. Kolyma 21 no.2:15-20 F '59. (MIRA 12:7)

1.Gornyy institut AN SSSR.  
(Mining engineering)

BARON, Lazar' Izrailevich; BRONNIKOV, D.M., kand.tekhn.nauk, otd.red.  
PARTSEVSKIY, V.N., red.izd-va; GOLUB', S.P., tekhn.red.

[Lumpiness and methods of ore sizing] Kuskovatost' i metody  
se izmereniiia. Moskva, Izd-vo Akad.nauk SSSR, 1960. 122 p.

(Ore dressing)

(MIRA 13:5)

BRONNIKOV, D.M., kand.tekhn.nauk

Effect of the diameter of blasting holes on the over-all rate  
and the specific rate of boring. Trudy Inst. gor. dela 5:97-  
100 '60. (MIRA 14:5)

(Boring)

BRONNIKOV, Dmitriy Mikhaylovich, doktor tekhn. nauk; BARANOV, Ye.G., kand. tekhn. nauk, retsenzent; MALKIN, I.M., kand. tekhn.nauk, retsenzent; KUTUZOV, D.S., gorn. inzh., retsenzent; PARTSEVSKIY, V.N., red. izd-va; LOMILINA, L.N., tekhn. red.

[Choice of blasthole parameters in underground ore breaking] Vybor parametrov vzryvnykh skvazhin pri podzemnoi otboike rud. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1961. 109 p.

(Boring)

(Blasting)

(MIRA 14:12)

KULICHIKHIN, N.I.; BRONNIKOV, D.M.; RODIONOV, N.S.; KRASAVIN, G.A.

Using high-speed motion picture photography in studying the  
impact action on rocks. Izv. vys. ucheb. zav.; geol. i razv.  
4 no.4:128-129 Ap '61. (MIRA 14:6)

1. Moskovskiy geologoazvedochnyy institut imeni S. Ordzhonikidze.  
(Rock drill)  
(Motion picture in mining)

BIRYUKOV, Innokentiy Mikhsylovich; BRONNIKOV, D.M., doktor tekhn. nauk, retsenzent; GEYMAN, L.M., red. izd-va; SABITOV, A., tekhn. red.

[Boring with a roller bit in mining] Sharoshechnoe burenie v gornom dele. Moskva, Gosgortekhizdat, 1962. 162 p.  
(MIRA 15:9)

(Boring machinery)

BUCHNEV, Valer'yan Konstantinovich, prof., doktor tekhn. nauk,  
[deceased]; BRONNIKOV, Dmitriy Mikhaylovich, doktor tekhn.  
nauk; VASIL'CHIKOV, Nikolay Vasil'yevich, kand. tekhn. nauk;  
GANZEN, Georgiy Aleksandrovich; SHUSTOV, Nikolay Vasil'yevich;  
FETEROVICH, Izrail' Izraylevich, inzh.; DEMIDYUK, G.P., otv.  
red.; BURTSEV, L.I., otv. red.; KOROLEVA, T.I., red. izd-va;  
OSVEYENKO, V.G., tekhn. red.; PROZOROVSKAYA, V.L., tekhn. red.

[Handbook on drilling boreholes in underground workings] Spravochnik po bureniiu shpurov i skvazhin na podzemnykh rabotakh.  
[By] V.K.Buchnev, i dr. Moskva, Gosgortekhizdat, 1962. 271 p.  
(Boring) (MIRA 15:12)